

## SEQUENCE LISTING

5       <110> Jackson, David C  
          Ghosh, Souravi  
5        Walker, John

10      <120> T Helper Cell Epitopes

10      <130> 501902/MRO

15      <150> US 09/890650  
15      <151> 2002-03-22

15      <150> PCT/AU00/00070  
15      <151> 2000-02-07

20      <150> AU PP8533  
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20      <150> AU PQ2013  
20      <151> 1999-08-04

25      <160> 30

25      <170> PatentIn version 3.1

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55      Ser

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1 5 10 15  
  
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30 Leu  
  
  
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60 Met  
  
  
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10 Leu

15 <210> 13  
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Phe Ala Gly Val Val Leu Ala Gly Val Ala Leu Gly Val Ala Thr Ala  
1 5 10 15

25 Ala

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40 Ala

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Thr Ala Ala Gln Ile Thr Ala Gly Ile Ala Leu His Gln Ser Asn Leu  
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55 Asn

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Gly Ile Ala Leu His Gln Ser Asn Leu Asn Ala Gln Ala Ile Gln Ser  
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Leu

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Ile

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Glu Gln Ser Asn Lys Ala Ile Glu Glu Ile Arg Glu Ala Thr Gln Glu  
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Thr

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Ala

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Ser

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Thr

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40 <213> CDV peptide P64  
  
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Asn

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Ala

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15          Val

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30          Ala

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45          Gln Asp Arg Pro Pro Gln Pro Ser Thr Glu Leu Glu Glu Thr Arg Thr  
                  20                   25                   30

50          Ser Arg Ala Arg His Ser Thr Thr Ser Ala Gln Arg Ser Thr His Tyr  
                  35                   40                   45

55          Asp Pro Arg Thr Ser Asp Arg Pro Val Ser Tyr Thr Met Asn Arg Thr  
                  50                   55                   60

60          Arg Ser Arg Lys Gln Thr Ser His Arg Leu Lys Asn Ile Pro Val His  
                  65                   70                   75                   80

65          Gly Asn His Glu Ala Thr Ile Gln His Ile Pro Glu Ser Val Ser Lys  
                  85                   90                   95

70          Gly Ala Arg Ser Gln Ile Glu Arg Arg Gln Pro Asn Ala Ile Asn Ser

	100	105	110
5	Gly Ser His Cys Thr Trp Leu Val Leu Trp Cys Leu Gly Met Ala Ser		
	115	120	125
10	Leu Phe Leu Cys Ser Lys Ala Gln Ile His Trp Asp Asn Leu Ser Thr		
	130	135	140
15	Ile Gly Ile Ile Gly Thr Asp Asn Val His Tyr Lys Ile Met Thr Arg		
	145	150	155
	160		
20	Pro Ser His Gln Tyr Leu Val Ile Lys Leu Ile Pro Asn Ala Ser Leu		
	165	170	175
25	Ile Glu Asn Cys Thr Lys Ala Glu Leu Gly Glu Tyr Glu Lys Leu Leu		
	180	185	190
30	Asn Ser Val Leu Glu Pro Ile Asn Gln Ala Leu Thr Leu Met Thr Lys		
	195	200	205
35	Asn Val Lys Pro Leu Gln Ser Leu Gly Ser Gly Arg Arg Gln Arg Arg		
	210	215	220
40	Phe Ala Gly Val Val Leu Ala Gly Val Ala Leu Gly Val Ala Thr Ala		
	225	230	235
	240		
45	Ala Gln Ile Thr Ala Gly Ile Ala Leu His Gln Ser Asn Leu Asn Ala		
	245	250	255
50	Gln Ala Ile Gln Ser Leu Arg Thr Ser Leu Glu Gln Ser Asn Lys Ala		
	260	265	270
55	Ile Glu Glu Ile Arg Glu Ala Thr Gln Glu Thr Val Ile Ala Val Gln		
	275	280	285
60	Gly Val Gln Asp Tyr Val Asn Asn Glu Leu Val Pro Ala Met Gln His		
	290	295	300
65	Met Ser Cys Glu Leu Val Gly Gln Arg Leu Gly Leu Arg Leu Leu Arg		
	305	310	315
	320		
70	Tyr Tyr Thr Glu Leu Leu Ser Ile Phe Gly Pro Ser Leu Arg Asp Pro		
	325	330	335
75	Ile Ser Ala Glu Ile Ser Ile Gln Ala Leu Ile Tyr Ala Leu Gly Gly		
	340	345	350
80	Glu Ile His Lys Ile Leu Glu Lys Leu Gly Tyr Ser Gly Ser Asp Met		

355

360

365

5        Ile Ala Ile Leu Glu Ser Arg Gly Ile Lys Thr Lys Ile Thr His Val  
       370                    375                    380

10      Asp Leu Pro Gly Lys Phe Ile Ile Leu Ser Ile Ser Tyr Pro Thr Leu  
       385                    390                    395                    400

15      Ser Glu Val Lys Gly Val Ile Val His Arg Leu Glu Ala Val Ser Tyr  
       405                    410                    415

20      Asn Ile Gly Ser Gln Glu Trp Tyr Thr Thr Val Pro Arg Tyr Ile Ala  
       420                    425                    430

25      Thr Asn Gly Tyr Leu Ile Ser Asn Phe Asp Glu Ser Ser Cys Val Phe  
       435                    440                    445

30      Val Ser Glu Ser Ala Ile Cys Ser Gln Asn Ser Leu Tyr Pro Met Ser  
       450                    455                    460

35      Pro Leu Leu Gln Gln Cys Ile Arg Gly Asp Thr Ser Ser Cys Ala Arg  
       465                    470                    475                    480

40      Thr Leu Val Ser Gly Thr Met Gly Asn Lys Phe Ile Leu Ser Lys Gly  
       485                    490                    495

45      Asn Ile Val Ala Asn Cys Ala Ser Ile Leu Cys Lys Cys Tyr Ser Thr  
       500                    505                    510

50      Ser Thr Ile Ile Asn Gln Ser Pro Asp Lys Leu Leu Thr Phe Ile Ala  
       515                    520                    525

55      Ser Asp Thr Cys Pro Leu Val Glu Ile Asp Gly Ala Thr Ile Gln Val  
       530                    535                    540

60      Gly Gly Arg Gln Tyr Pro Asp Met Val Tyr Glu Gly Lys Val Ala Leu  
       545                    550                    555                    560

65      Gly Pro Ala Ile Ser Leu Asp Arg Leu Asp Val Gly Thr Asn Leu Gly  
       565                    570                    575

70      Asn Ala Leu Lys Lys Leu Asp Asp Ala Lys Val Leu Ile Asp Ser Ser  
       580                    585                    590

75      Asn Gln Ile Leu Glu Thr Val Arg Arg Ser Ser Phe Asn Phe Gly Ser  
       595                    600                    605

80      Leu Leu Ser Val Pro Ile Leu Ser Cys Thr Ala Leu Ala Leu Leu

610 615 620

5 Leu Ile Tyr Cys Cys Lys Arg Arg Tyr Gln Gln Thr Leu Lys Gln His  
625 630 635 640

10 Thr Lys Val Asp Pro Ala Phe Lys Pro Asp Leu Thr Gly Thr Ser Lys  
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Ser Tyr Val Arg Ser Leu  
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1 5

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55 Ala Asn Pro Asn Ala Asn Pro Asn Ala Asn Pro  
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